An Economic Approach to the Regulation of Direct Marketing

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I. INTRODUCTION

In the last thirty years of the twentieth century, the volume of direct marketing received through the traditional channels of mail and telephone increased rapidly. More recently, new electronic media for communications have developed, such as fax, e-mail, and instant messaging, and new personal communications devices have appeared, such as wireless phones and e-mail devices, which have made communications easier, cheaper, and more immediate. The growth of direct marketing in traditional and new media has raised concerns about an important privacy issue, the right to not be intruded upon or annoyed by unsolicited mail, telephone calls and electronic messages (i.e., the “right to be let alone”). As a result there has been a substantial increase in the demand for legislation to regulate direct marketing in recent years. In the last two decades, legislation has been passed by Congress and state legislatures to regulate direct marketing in various media, including the establishment of do-not-contact lists for some media (e.g., telemarketing), and the outright ban of unsolicited commercial messages for other media (e.g., unsolicited commercial faxes).

Policymakers have had to balance the benefits derived from direct marketing (and firms’ free speech rights) with receivers’ rights to privacy. While direct marketing can improve the flow of information about products available to consumers, and therefore provides a benefit to buyers, it also generates a negative externality, since nonbuyers are also forced to expend time, effort, and sometimes money processing advertising messages. A large volume of poorly-targeted direct marketing messages can therefore

place a significant burden on consumers’ time, patience, and resources. Indeed, if the volume of advertising messages on a particular communications medium is heavy enough, consumers may be deterred from using that medium for their communications needs. Thus, direct marketing can affect the usefulness, and even the viability, of a communications medium.

This Article demonstrates how economic social welfare analysis can provide guidance to policymakers who are considering whether to regulate direct marketing in various media, and what forms of regulations are most effective. The key factors that determine where the problem is likely to be greatest are identified and analyzed to help determine in which media the intrusion of direct marketing on receivers’ privacy is likely to be the most troublesome. The Article discusses how the recent rise in complaints about direct marketing and demands for regulation is caused mostly by changes in the technological environment, which have increased the volume of direct marketing sent out and lowered direct marketing’s value to consumers, thus raising its total cost to receivers. Of particular importance are the development of new inexpensive means of communication, such as e-mail and electronic messaging, the use of mobile personal communications devices, which increase the immediacy of communications, and improvements in information technology, which have lowered the cost and increased the profitability of conducting a mass direct marketing campaign. The Article also discusses the various solutions available, which can be deployed by receivers, senders, or imposed by the government or the organization or firm that controls the communications medium.

II. THE GROWTH OF DIRECT MARKETING

The use of direct marketing by advertisers has grown rapidly in the last few decades. Much of this growth occurred in the traditional direct marketing outlets, such as direct mail and telemarketing. In the late 1970s and 1980s the volume of direct mail increased rapidly, as shown in Figure 1. Between 1975 and 1988 in particular, the number of direct mail pieces received per capita jumped by 133%.\(^2\) The likely causes of this increase are

\(^2\) *Id.* at 3.
the fall in information technology and communication costs, the general increase in demand for advertising, and the increased information firms have about consumers.\textsuperscript{3} In 2003, 54\% of the total mail volume received by households was direct mail advertising and fundraising, about thirteen pieces per week per household.\textsuperscript{4} (See infra Figure 1.)

Telemarketing grew even more rapidly in this time period than direct mail. Expenditures on outbound telemarketing increased annually by 10.3\% from 1978 to 1996, versus 5.7\% for direct mail.\textsuperscript{5} By 1998, more was being spent by marketers on outbound (from firms to consumers) telemarketing, $58.9 billion, than on direct mail advertising, $39.7 billion.\textsuperscript{6}

Direct marketers have been quick to utilize new communications and information technologies to help them advertise their products directly to potential and existing customers. As fax machines became common in commercial establishments, firms attempted to advertise their products by sending unsolicited faxes.\textsuperscript{7} Advertising on the Internet has grown rapidly, much of it in the form of Unsolicited Commercial Emails (“UCE” or “spam”). It has been estimated that about 80\% of all e-mail was spam in

\textsuperscript{3} Id. at 11–12.
\textsuperscript{6} Direct Marketing Flow Chart, Direct Mktg., Nov. 1999, at 3. Statistics on telemarketing expenditures since the implementation of the FTC’s Do-Not-Call list are not available.
2004. There has also been substantial posting of advertisements on Internet forums and bulletin boards and on Usenet, Internet mailing lists, and discussion groups. Some countries in Asia and Europe where Short Message Service (“SMS”) text messaging is heavily used have seen large volumes of unsolicited advertising appear on text messages to mobile devices. There are now predictions that commercial advertising will soon appear on instant messaging (“spim”), IP telephony, and telemarketing calls to wireless phones.

A. Public Reaction to Direct Marketing

The growth of unsolicited advertising in the traditional channels of

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9. Usenet is a collection of special-interest discussion groups called newsgroups that can be easily accessed on the Internet. Usenet newsgroups are set up like bulletin boards, such that participants can post a message at no cost for others to read. See Rosalind Resnick & Dave Taylor, The Internet Business Guide: Riding the Information Superhighway to Profit 16–22 (1994); Wikipedia, Mailing List, http://en.wikipedia.org/wiki/Mailing_list (last visited Mar. 29, 2006).
10. An Internet mailing list (often called a Listserv mailing group) allows members to communicate with the group by sending in messages to a central list server, which then distributes the messages by e-mail to subscribers. Many mailing lists allow anyone to easily and freely subscribe and unsubscribe. See Resnick & Taylor, supra note 10, at 9–16 (1994); Wikipedia, Mailing List, http://en.wikipedia.org/wiki/Mailing_list (last visited Mar. 29, 2006).
11. Julie Chao, Internet Pioneers Abandon World They Created, WALL ST. J., June 7, 1995, at B1. It has even reached the comment sections on bloggers’ Web sites. See Matt Hicks, Microsoft Bloggers Face Search Spam Pinch, EWeek, Dec. 21, 2004, http://www.eweek.com/print_article2/0,2533,a=141476,00.asp.
direct mail and telemarketing, and the new channels of advertising by fax, e-mail, Internet forums, and electronic messaging, has attracted public attention and concern. There has been an increase in the number of articles on direct marketing in the news media, including newspaper editorials and magazine cover stories.\textsuperscript{16} Public opinion surveys suggest that the public is quite concerned about the volume of direct marketing received. The number of people who wish they received less advertising mail rose from 30\% in 1987 to 49\% in 1998 to 63\% in 2003.\textsuperscript{17} In 1994, 86\% of the public said they wished they got fewer telemarketing calls.\textsuperscript{18} Meanwhile 90\% of Internet users responding to a survey in November 2003 said they found UCE annoying, and 74\% wanted it banned.\textsuperscript{19} Large numbers of Web sites have been created to protest direct marketing, and organizations have been set up to encourage legislation that would regulate telemarketing and spam.\textsuperscript{20}

Policymakers have responded by conducting hearings, passing legislation, and implementing new rules, to regulate some forms of direct marketing.\textsuperscript{21} Yet some forms of direct marketing have received more

\begin{footnotesize}
\begin{enumerate}
\item[18.] U.S. POSTAL SERVICE HOUSEHOLD DIARY STUDY (1994) (unpublished survey results on file with the Author and the FCLJ).
\item[19.] Humphrey Taylor, \textit{The Harris Poll, Harris Interactive, Spam Keeps on Growing} (2003), \url{http://www.harisinteractive.com/harris_poll/index.asp?PID=424}.
\item[20.] Leslie Gornstein, \textit{Telemarketer-bashing Spreads Across Internet}, FORT WORTH STAR-TELEGRAM, Apr. 3, 1997, at 1. For example, an organization dedicated to stopping the use of UCE called the Coalition Against Unsolicited Commercial Email (“CAUCE”) claims to have over 21,000 members as of early 2005, and is pressing Congress to pass legislation restricting unsolicited e-mail. CAUCE Coalition Against Unsolicited Commercial Email, CAUCE Membership Statistics, \url{http://www.cauce.org/members/stats/index.phtml} (last visited Mar. 18, 2006) [hereinafter CAUCE].
\item[21.] For example, Congress has conducted hearings on direct mail, and passed the Telephone Consumer Protection Act to regulate telemarketing, and the CAN-SPAM Act of 2003 to regulate direct marketing on the Internet. \textit{Oversight Hearing on the Use of Mailing
attention and legislation and are heavily regulated (or even banned), while other forms have appeared to spark less concern and have been less regulated. For example, despite the attention given in the media and in congressional hearings, direct mail has not been regulated, and there appears to be little public pressure to regulate it in the near future.

Telemarketing, on the other hand, has been heavily regulated at the state and federal levels, and the strength of the regulations is increasing. Initially, just the hours and methods of contact were regulated. More recently, new legislation and regulations have made it easier for consumers to completely opt-out of receiving unsolicited telemarketing calls. Many states have passed “asterisk bills,” which prohibit unsolicited telephone sales calls to people who have requested that an asterisk be placed next to their name in the telephone directory, or have required that telemarketers honor do-not-call lists. The most significant impact has come from the national Do Not Call registry imposed by the FTC in 2003. Sixty-two


22. See, e.g., Revolt of the Junk Receivers, supra note 16; Edmondson, supra note 16; Headdon, supra note 16.

23. See Oversight Hearing, supra note 21.

24. There is some self-regulation in the form of a do-not-mail list called the Mail Preference Service (“MPS”), which is maintained by the industry trade group the Direct Marketing Association (“DMA”). See DIRECT MKTG. ASS’N, PRIVACY PROMISE MEMBER COMPLIANCE GUIDE (2003), http://www.the-dma.org/privacy/Privacy_Promise.pdf [hereinafter COMPLIANCE GUIDE].

25. Telemarketers were required to register with state authorities in many states, and the large majority of states have regulated the use of Automatic Dialing Recorded Message Players (“ADRMPs”) and the permitted hours of making calls. Congress passed the Telephone Consumer Protection Act (“TCPA”) in 1991, which restricted the hours of calling, required that telemarketers maintain do-not-call lists, and prohibited the use of ADRMPs. See WINSTON, supra note 21, at 186–87; DIRECT MKTG. ASS’N, COMPRENDIUM OF GOVERNMENT ISSUES AFFECTING DIRECT MARKETING IN 1998, 65–69 (Elizabeth Scanlon ed., 1999) (on file with author and FCLJ).

milllion phone numbers were signed up just one year later, about 60% of respondents to a survey.\footnote{Press Release, FTC, National Do Not Call Registry Celebrates One-Year Anniversary (June 24, 2004), http://www.ftc.gov/opa/2004/06/dncanny.htm. The FTC also reported that 87% of those who signed up said they received fewer calls. \textit{Id.}}

Commercial advertising both to fax machines and using text messaging to mobile phones has been banned.\footnote{\textit{Winston}, supra note 21, at 194; Rules and Regulations Implementing the Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003, \textit{Order}, 19 F.C.C.R. 15927, paras. 1, 13–19 (2004) [hereinafter Non-Solicited Pornography].} Notably, both methods of advertising cost the receivers money. There were significant complaints about unsolicited fax messages in the 1980s, especially since faxes consumed receivers’ toner and paper, and tied up their fax machines.\footnote{See \textit{Stop Me Before I Fax Again}, supra note 7; Gerlin, supra note 7; R.A. Spinello, \textit{Ethical Reflections on the Problem of Spam}, 1 \textit{Ethics & Info. Tech.}, 185, 187 (1999).} Unsolicited fax advertising was banned by the Telephone Consumer Protection Act of 1991 (“TCPA”).\footnote{Telephone Consumer Protection Act of 1991, 47 U.S.C. § 227, 227(d) (2000); \textit{Winston}, supra note 21, at 194.} Meanwhile, phone companies in the United States usually charge a per message fee for sending and receiving text messages.\footnote{For example, Verizon Wireless charges $0.10 for each message sent or received with packages available that allow unlimited text messages with other Verizon Wireless customers for a monthly fee. See Verizon Wireless, Personal, Plans, http://www.verizonwireless.com (select “Individual Plans”; click “TXT messaging”) (last visited Mar. 28, 2006).} The FCC prohibited the sending of unsolicited commercial messages to mobile phones in 2004 as part of the implementation of the CAN-SPAM act.\footnote{Non-Solicited Pornography, \textit{supra} note 28.} Telemarketing to wireless phones has become controversial, and it too incurs a cost for receivers.\footnote{CBSNews.com, \textit{supra} note 15.} While not illegal, it has been limited by a combination of self-restraint by telemarketers following the rules issued by the industry trade group, the Direct Marketing Association (“DMA”), and legal restrictions.\footnote{See \textit{Compliance Guide}, \textit{supra} note 24; Press Release, Direct Mktg. Ass’n, Unsolicited Marketing Calls to Cell Phones Are Illegal–With or Without a Cell Phone Directory (Dec. 10, 2004), http://www.the-dma.org/cgi/disppressrelease?article=609.} The FTC’s Do Not Call registry accepts wireless phone numbers, and the TCPA’s prohibition on the use of automatic telephone

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27. Press Release, FTC, National Do Not Call Registry Celebrates One-Year Anniversary (June 24, 2004), http://www.ftc.gov/opa/2004/06/dncanny.htm. The FTC also reported that 87% of those who signed up said they received fewer calls. \textit{Id.}


31. For example, Verizon Wireless charges $0.10 for each message sent or received with packages available that allow unlimited text messages with other Verizon Wireless customers for a monthly fee. See Verizon Wireless, Personal, Plans, http://www.verizonwireless.com (select “Individual Plans”; click “TXT messaging”) (last visited Mar. 28, 2006).


33. CBSNews.com, \textit{supra} note 15.

dialing equipment, which the FCC now interprets to include the commonly used predictive dialers, for calling wireless numbers significantly reduces the incentive for telemarketers to call wireless phones.\footnote{35}

The rapid growth of UCE (i.e., spam) has generated many complaints from users and Internet Service Providers (“ISPs”) (which incur added costs from carrying it on their servers) and attracted policymakers’ attention. Many states have passed laws to regulate UCE, or are considering legislation to restrict its use.\footnote{36} Congress passed the CAN-SPAM Act of 2003, which requires that commercial e-mail clearly indicates who sent it and what its purpose is, and be labeled as advertising in the subject line.\footnote{37} The volume of spam e-mail has continued to rise since passage, however.\footnote{38}

\section*{B. The Literature on Direct Marketing}

The evident rise in public concern about direct marketing has yet to be fully explained in the formal literature. Kielbowicz\footnote{39} argues that the controversy surrounding “junk mail” was manufactured by newspapers in order to raise third class postal rates and hinder the development of direct mail, a traditional competitor to newspapers for advertising. Yet the strength of the public’s reaction against direct marketing in media other than mail suggests that the public has substantial concerns about the direct marketing that it receives.\footnote{40}

Some privacy experts have analyzed this issue as an encroachment on individual privacy. Privacy experts have recognized that two kinds of individual privacy are affected by direct marketing: the right to be left

\begin{footnotesize}
\footnote{36}{See CAUCE, \textit{supra} note 20.}
\footnote{38}{Zeller, \textit{supra} note 8.}
\footnote{40}{See \textit{supra} Part I.A (describing public reaction).}
\end{footnotesize}
alone, and the right to control information about oneself. Yet most of the discussion on direct marketing’s impact on privacy, in the academic literature and the popular press, has concentrated on consumers’ loss of control over information about themselves, i.e. their loss of “informational privacy.”

However, the volume problem, which involves the “right to be left alone,” is fundamentally different from the informational privacy problem. While informational privacy can easily be compromised by a single incident of personal information being improperly obtained or used, the volume problem as discussed here relates to the aggregate volume of advertising received. Therefore, the key issues here are not individual incidents and how to prevent them, but the basic conditions determining the volume and relevance of advertising received by consumers, and how burdensome this advertising is for consumers to process. Thus, the volume problem must be studied differently, and the solutions needed will differ in nature from those proposed to protect informational privacy.


42. See, e.g., Paul N. Bloom, et al., Avoiding Misuse of New Information Technologies: Legal and Societal Considerations, 58 J. MKTG 98, 100 (1994); Jones, supra note 41; Kevin F. Mcrohan, Information Technology, Privacy, and the Public Good, 8 J. PUB’Y & MARKETING 265, 265–266 (1989); John Morse & Suzanne Morse, Teaching Temperance to the ‘Cookie Monster’: Ethical Challenges to Data Mining and Direct Marketing, 107 BUS. & SOC’Y REV. 76, 76 (2002); Glen J. Nowak & Joseph Phelps, Understanding Privacy Concerns: An Assessment of Consumers’ Information-Related Knowledge and Beliefs, J. DIRECT MKTG., Autumn 1992, at 28; Glen J. Nowak & Joseph Phelps, Direct Marketing and the Use of Individual-Level Consumer Information: Determining How and When ‘Privacy’ Matters, J. DIRECT MKTG, Summer 1995, at 46; Phelps et al., supra note 16, at 17–18 (noting that of 435 newspaper stories from five major newspapers that were examined for 1984–1992, 71% contained references to the gathering and/or use of information about consumers, while only 30% concerned the intrusion of uninvited advertising messages).


44. The volume problem does not encompass all possible violations of an individual’s right to be left alone. A single incident, such as a fraudulent telemarketing call or a harassing call, can intrude on this other form of privacy. These potential violations of individual privacy fall outside the scope of this Article.
Much of the literature on the volume problem has tended to focus on either the ethical or legal issues concerning direct marketing’s impact on consumers’ privacy. Some authors have proposed or discussed particular solutions to the problem. The direct marketing trade press has also discussed the issue, often providing advice to direct marketers on how to avoid angering consumers or policymakers with their marketing.

There is recent economics literature that analyzes the issues of call externalities and information overload discussed in this Article. Some of this literature focuses on pricing issues and on finding the welfare-maximizing price that achieves the optimal level of message-sending.

However, there has been little attempt to provide an overarching


framework to be used by policymakers for analyzing the problem in many communications media using a microeconomic perspective. Such a framework would help us understand how serious the problem is, or is likely to become, for different media, and how it is affected by various economic and technological factors. It would also help policymakers better evaluate the impact of various possible regulations that could be used to reduce the problem where it exists.

This Article analyzes the volume problem generated by direct marketing, using a theoretical framework that is based on microeconomic social welfare analysis. This framework allows for a multichannel approach to regulation, such that the decision to regulate direct marketing in any particular media would take into consideration the opportunities for firms to advertise their products using other, more suitable, media. This approach complements traditional legal and ethical analysis. The problems of informational privacy, consumer fraud, and free speech are not considered here (except tangentially), since they fall outside the scope of the framework presented. Those interested in these issues should consult the extensive literature concerning them. 52

This Article next describes the basic framework for analysis, and shows how the value of direct marketing can vary using a mathematical model and some examples. It focuses in the initial analysis on two key factors: the sending and receiving costs associated with a particular communications medium. The following Part discusses how to apply the framework to the various media available for direct marketing. It then discusses how to take into consideration other factors that could affect the value of direct marketing in particular media, and how these factors may change over time. Next, the kinds of solutions that are available to reduce the cost of direct marketing to consumers and society are examined. The final Part provides some concluding remarks.

III. THE FRAMEWORK FOR ANALYSIS OF THE VOLUME PROBLEM

This Article is concerned with the kind of direct marketing that

52. See, e.g., Bloom et al, supra note 42; Byrne, supra note 46; Carroll, supra note 46; Foxman & Kilcoyne, supra note 41; Goodwin, supra note 41; Milne & Gordon, supra note 45; Morse & Morse, supra note 42; Sorkin, supra note 46.
involves firms sending unsolicited advertising messages directly to selected consumers. This advertising benefits consumers by informing them about products they might want to buy. However, it also imposes a cost on consumers, regardless of whether they buy the product. This cost includes the time and effort used in processing the message (reading the letter or answering the telephone and hearing the sales pitch), and determining the appropriate response. For example, if a consumer receives a letter from a marketer advertising encyclopedias, the consumer benefits by hearing about the encyclopedias, but at a cost of having to open, read, and dispose of the letter. If the consumer does not purchase the encyclopedias, the time spent examining the letter will likely have been wasted. While the cost of processing each message may be small, large numbers of messages may impose a significant burden on consumers' time and patience. With some kinds of messages (e.g., fax and SMS text messages) there is also a financial cost incurred by the recipient for receiving a message. Because there is a cost from these messages imposed on receivers which is incurred regardless of whether a purchase is made, this market for messages generates a negative externality. When negative externalities exist, market mechanisms do not typically lead to efficient results.

This Article utilizes microeconomic social welfare analysis in a framework developed in a previous paper by the author. Social welfare analysis is employed here to analyze the value (and potential harms) to

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53. The benefits a consumer might derive from reading about the product are discussed later.

54. Externalities occur when some of the costs or benefits from a market action are not borne by the market participants. DENNIS W. CARLTON & JEFFREY M. PERLOFF, MODERN INDUSTRIAL ORGANIZATION 82 (3d ed. 2000). In market transactions without externalities, those who incur costs associated with the transaction (usually by the producer of the good) are compensated by payments (usually from buyers). In this case, there is a cost created by the sending of a message (i.e., the cost of processing the message) that is imposed on third parties, which are the people who receive and process the message but do not buy the good.

55. Shiman, supra note 51. Microeconomic social welfare analysis examines the costs and benefits to society from the operation of a market. Markets that are operating efficiently maximize the net benefits (called social welfare) society gains from that market. Social welfare analysis is often used by economists to determine the extent of market failure in a particular market, whether caused by structural characteristics of the industry, externalities, or government regulations and taxes. They also use it to analyze the impact of a policy action on a market. See generally CARLTON & PERLOFF, supra note 54, ch. 3.
consumers and society of receiving advertising messages and to assess the impact of various organizational, technological, and regulatory options that could be implemented.\textsuperscript{56}

A microeconomic approach usually requires the identification of the benefits and costs of the market action, in this case the sending and receiving of direct advertising messages. Firms use direct marketing to attempt to sell their products directly to customers they have identified as likely purchasers.\textsuperscript{57} They will send an advertising message to every consumer for whom the expected (i.e., average) revenue gained from sending the message exceeds the cost of sending the message, such that the firm earns a positive expected profit from sending the message. The expected net benefit the consumer gets from a message equals the difference between the expected benefit of hearing about the product and the cost of processing the message. The expected net benefit to society (i.e., the welfare gained) from sending a message is then the expected net benefit to the consumer of receiving the message, plus the net benefit to the firm of sending it (i.e., the firm’s profit). If firms send out messages which provide a negative expected net benefit to society, then this Article will call these messages “Welfare-Reducing Marketing” messages or WRM. Society would be better off if WRM messages were not sent, since the cost to consumers to receive and process these messages is greater than the expected benefit to consumers from hearing about the product plus the expected profit to firms from sending the message.

The expected benefit to the consumer of hearing about the product depends on, among other factors, the likelihood that the consumer will purchase the product. This in turn depends on how carefully the sending firm has targeted likely buyers. Firms maintain or acquire lists of

\textsuperscript{56} Oftentimes social welfare analysis involves separately determining the impact of the market and the market failure on consumers (called consumer surplus) and producers (called producer surplus) to find each group’s net benefit, and then summing the two groups’ net benefits to calculate the impact on welfare. \textit{Carlton \& Perloff, supra} note 54, at 71–72. In this Article the analysis focuses on senders and receivers of messages. Note that while message senders are usually sellers of a good, most recipients do not buy the good, so the correspondence is not identical to the usual model of sellers and buyers of goods.

\textsuperscript{57} According to one survey, the industries that use direct mail the most are mail order firms, publishers, department stores, specialty stores, and credit card companies, in that order. \textit{Household Diary Study 1999}, \textit{supra} note 17, at VI-7.
consumers classified according to the consumers’ personal characteristics such as demographics, lifestyles, subscriptions, and past purchases. For each offer of a particular product, price and sales pitch, firms are able to test each list with sample mailings of 5,000–10,000 names to determine that list’s response rate, which is the proportion of people on the list that respond to each mailing. Each list is used in a direct marketing campaign only if it generates a high enough response rate to produce sufficient revenue to at least cover the cost of the mailings to that list.\textsuperscript{58}

Low message sending costs make it profitable for a firm to send advertising to lists with low response rates. In effect, the low cost of contacting consumers reduces the incentive for marketers to target their advertising carefully, because the cost of wasting advertising on nonbuyers is low. The consumers receiving this advertising, however, may place a low value on it, because of the low probability of their purchasing the good. For example, if a firm uses lists with a 1\% response rate, only 1 in 100 recipients will be interested, and the other recipients might consider the mailing unwelcome, even before examining it.\textsuperscript{59}

Thus an advertising message is more likely to be considered undesirable by receivers if it is poorly targeted, and if the cost of processing the message (both financial and in time and effort) is high. Those media with low costs of sending messages, and that have a high cost of receiving and processing messages are therefore more likely to have welfare-reducing messages.

\textsuperscript{58} See Bob Stone, Successful Direct Marketing Methods ch. 9 (5th ed. 1994). For example, if a firm has three lists of potential customers, call them lists A, B, and C, then the firm might try test mailings to three samples of 10,000 names, one sample drawn from each list. If in response to the test mailing 100 people on list A, 500 people on list B, and 2,000 people on list C purchase the firm’s good, then the predicted response rate for list A is $100/10,000 = 1\%$, for list B is $500/10,000 = 5\%$, and for list C is $2,000/10,000 = 20\%$. If the firm determines that a 10\% response rate is required for the mailing to be profitable, then the firm would consider engaging in a full direct marketing campaign, with a mailing sent to all names on the list, only for list C.

\textsuperscript{59} Note the expected benefit is determined \textit{ex ante}, before the receiver has processed the message and decided whether to respond. WRM can therefore occur for all consumers who receive the message, even those who \textit{ex post} find it useful. This would be akin to forcing people to buy a $2 lottery ticket, with a 1\% chance of winning $100, yielding an expected net benefit of -$1. Even though there are a few happy winners in the short run, if this purchase occurs repeatedly, everyone will likely be worse off in the long run.
In some media the sending costs may be sufficiently low, and receiving costs sufficiently high, that advertising on the whole yields a negative net benefit to recipients. If recipients are unable to distinguish, before processing the messages, between advertising messages that yield a positive net benefit and those that yield negative net benefit, then they may prefer to receive no advertising at all. Thus for media where all messages look alike ex ante (before they are processed), and the net benefit of processing advertising is negative, consumers will have an aversion to all marketing on these media, which we will call “Marketing Aversion.” When Marketing Aversion exists, consumers may avoid processing all advertising messages, if possible, or may urge policymakers to ban all advertising.60

Indeed, if consumers cannot distinguish ex ante between advertising and personal messages, and the net benefit to consumers of processing all messages received (including nonadvertising messages) were negative, then consumers would want to ignore all messages received. Thus it would not be worthwhile to answer the telephone, or read one’s mail, e-mail, or Internet forum postings. If this occurred for most users of a medium, the medium would collapse as a means of communicating with others, which we will call “Medium Failure.” Direct marketing thus can affect the viability of a medium.61

If the net benefit to all senders and recipients of all marketing messages is negative, then there is “Negative Welfare from Marketing.” If it proves impossible to reduce the harms from marketing or to block just the welfare-reducing marketing messages, then the government may want

60. In this case marketers using low response rate lists to send WRM impose a negative externality not just on receivers, but also on other marketers that are targeting more carefully, since recipients might equally ignore all advertising.

61. There are likely a number of media that have collapsed because of this problem, especially on the Internet, which has extremely low message sending costs. For example, many unmonitored Usenet groups and Internet forums have disappeared. See Molly Wood, Eulogy for Usenet, ZDNET.COM, Jan 25, 2005, http://reviews-zdnet.com.com/4520-6033_16-5622511-1.html (“After all, the AOL hordes, by many accounts, ushered in the decline of Usenet, including the arrival of the spam that would eventually overwhelm the neighborhood.”); see also John C. Dvorak, Googlepedia: The End is Near, PC MAG.COM, Feb. 14, 2005, http://www.pcmag.com/article2/0,1895,1764757,00.asp (“Usenet has fallen out of favor and been largely marginalized over the past several years, as spammers helped ruin it.”).
to consider banning all unsolicited direct marketing on this medium. Note that direct marketing may, as a whole, provide positive net benefits to society even if consumers have Marketing Aversion, if the profits to firms (plus any external benefits)\textsuperscript{62} outweigh the costs to consumers from the marketing.\textsuperscript{63}

A. The Mathematical Model

This Part outlines the mathematical model that demonstrates the conditions for when some or all firms’ direct marketing will be welfare-reducing.\textsuperscript{64} Readers who are not interested in the mathematics may skip this Subsection. Let the firm’s cost of sending an advertising message to each consumer be $s$ for a particular communications medium. The price it charges for the good is $P$, and the cost of producing and shipping the good, excluding advertising costs, is $C$. The firm sends messages to each list for which the expected revenue from responses exceeds the sending costs. The expected economic profit per message sent to a person on list $i$ is

\textsuperscript{62} One external benefit might be financial support for providing the medium. For example, the U.S. Postal Service relies significantly on direct marketing for revenues. Thus a ban on direct mail would likely force postal rates up for noncommercial users. Similarly, some broadcast media (which do not involve direct marketing) likely have the equivalent of Marketing Aversion, but most consumers accept the advertising messages to be a necessary evil, since the messages support the other uses of the medium. For example, programming on advertiser-supported television and radio broadcasts is supported by consumers having to view advertisements during the programs.

\textsuperscript{63} Whether policymakers want to include sellers’ profits in the analysis depends on whether they prefer to focus on total social welfare or on consumer surplus. Economic theory has traditionally assumed that side payments between economic actors and groups can be arranged, such that winners (those that gain from a policy) can compensate losers for their losses. Thus, social welfare analysis usually has the goal of choosing the policy that maximizes the total gain to society as a whole, and assumes that the gains can be redistributed as necessary to make everyone happy. If such side payments are not feasible, then policymakers must choose how to weigh the various parties’ gains and losses according to political tastes and, possibly, considerations of long-term dynamic implications (e.g., economic growth and technological development).

\textsuperscript{64} This model was first outlined in Shiman, supra note 51, and further developed in Daniel R. Shiman, The Impact of Firms’ Increased Information about Consumers on the Volume and Targeting of Direct Marketing (Aug. 1997) (unpublished manuscript), available at http://ssrn.com/abstract=555646 (scroll down to SSRN Electronic Paper Collection and download).
(Eq. 1): \( \pi_i = (P - C) \theta_i - s \) where \( \theta_i \) is the response rate for list \( i \).

The firm sends advertising to all lists for which \( \pi_i > 0 \), and therefore all lists with response rate \( \theta > s/(P - C) \). The list with the lowest response rate \( \theta_m \) to be contacted is then

(Eq. 2): \( \theta_m = s/(P - C) \).

As \( s \) falls, lists with lower response rates will get advertising.

Meanwhile, consumers who receive messages incur a cost \( r \) for processing each message. Assume that those consumers that choose to buy the good value it at \( B \), if they are offered it, such that they receive value of \( B - P \) if they buy it.\(^\text{55}\) The \textit{ex ante} expected utility or benefit to consumers of receiving each message, often called the consumer surplus, is the probability of buying the good multiplied by the benefit if purchased, minus the receiving cost.\(^\text{66}\) So if consumers on list \( i \) have probability \( \theta_i \) of buying the good, let their expected utility from each advertising message be

\[ u = \begin{cases} 
(B - P) - r & \text{if } B \geq P \\
-r & \text{if } B < P.
\end{cases} \]

Note that the cost of receiving messages rises linearly with the number of messages such that twice as many messages are considered twice as burdensome to consumers. This may understate the actual increase in cost if consumers feel there is an annoyance factor to receiving more advertising messages, particularly for messages advertising goods that are not purchased.

\(^\text{55}\) We assume that consumers have a linear additively separable utility function such that for each message received, their \textit{ex post} utility is

\[ u = \begin{cases} 
(B - P) - r & \text{if } B \geq P \\
-r & \text{if } B < P.
\end{cases} \]

Note that the cost of receiving messages rises linearly with the number of messages such that twice as many messages are considered twice as burdensome to consumers. This may understate the actual increase in cost if consumers feel there is an annoyance factor to receiving more advertising messages, particularly for messages advertising goods that are not purchased.

\(^\text{66}\) Note that we assume that the receiver benefits from the message only if he or she buys the good advertised. Some consumers may benefit from seeing advertised prices for competing goods from multiple prices, even if they intend to purchase just one good. Or they may enjoy “window shopping” by browsing catalogs, either because they have an interest in the products or in the manner of presentation (such as Sharper Image). These benefits gained from just receiving the message can be incorporated into the analysis either by adjusting the receiving cost \( r \), if all messages are of interest or if only some messages are of interest, by assuming that \( B \) incorporates the utility from consuming both the message and the good. In the latter case, not all positive benefits \( B > P \) lead to a purchase, and consumers may actually want more mail than they receive. The market solution to this latter case is simple: the advertiser may require payment for its advertising if no purchases are made, as some catalog companies have appeared to do by putting a price on the catalog.
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(Eq. 3): \( u_i^a = (B - P)\theta_i - r \).

The social welfare gained from each message is the sum of the expected benefits to senders and receivers, plus any external costs or benefits to third parties.\(^{67}\) Assume that the external cost or benefit to third parties, call it \( E \), is constant for each message.\(^{68}\) Then the social welfare gained from each message sent to list \( i \) would be

\[
\text{(Eq. 4): } W_i = \pi_i + u_i^a + E = [(P - C)\theta_i - s] + [(B - P)\theta_i - r] + E = (B - C)\theta_i - s - r + E.
\]

A message is welfare reducing if \( W_i < 0 \). Observe that \( \pi_i \) can be positive, while \( u_i^a \) and even \( W_i \) can be negative if \( r \), \( P \), and \( E \) are large enough.\(^{69}\) This means that the firm may find it profitable to send messages to some consumers while those consumers and society, including third parties, gain negative benefit from receiving the messages. This is because \( r \) and \( E \) are externalities, which are costs to consumers and society that are not directly paid for by producers and buyers during the transaction. To simplify the analysis for now, \( E \) will be assumed to be zero. From (Eq. 2), (Eq. 4), and the fact that \( W_i \) is increasing in \( \theta_i \) in (Eq. 4), we find\(^{70}\) that WRM messages will be sent, meaning that \( W_i < 0 \) for some lists \( i \), only if

\[
\text{(Eq. 5): } s/(P - C) < r/(B - P).
\]

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67. See Carlton & Perloff, supra note 54, ch. 3. We assume for simplicity there are no taxes.

68. \( E \) could represent the impact of an advertising letter or catalog on a landfill, or the burden on an ISP of passing along an e-mail in which case the value of \( E \) would be negative. Note that whether a message is responded to will not likely change the message’s impact on the environment and on message intermediaries, so its cost or benefit does not vary with \( \theta_i \). \( E \) could also be positive. For example, the pictures of missing children placed on some advertising mail may aid in their return.

69. Here \( E \) is assumed to be negative and “large” in absolute value terms.

70. See Shiman, supra note 51, at 39.
For this analysis it is assumed that $B$, $P$, and $C$ are constant. While they will vary among products, firms, and consumers, it seems unlikely that they will vary much by medium for any given product, and therefore the focus is on how changes in receiving cost $r$ and sending cost $s$, especially large order-of-magnitude changes, affect social welfare. Consequently, WRM messages are more likely to be sent in media with low sending costs and high receiving costs. Consumers will not want to receive any WRM messages since for those messages $u_i^a < 0$.

If all advertising messages look alike *ex ante*, it is possible for the negative utility obtained by consumers for those messages to outweigh the positive benefits from other advertising messages received. Thus, summing the utilities for all advertising messages $j$ received by a consumer, if

(Eq. 6): $\Sigma u_i^a < 0$

then there is Marketing Aversion.

Medium Failure occurs when receivers are unable to distinguish *ex ante* between advertising and personal messages, and the net benefit of receiving all messages is negative. If consumers receive personal messages, each yielding utility $u_i^p$, then they will ignore all messages received if the messages all look alike *ex ante*, and if

(Eq. 7): $\Sigma u_i^a + \Sigma u_i^p < 0$.

Negative Welfare from Marketing occurs when the net benefit to society, including senders and receivers, of all marketing messages is negative. Thus summing the welfare, $W_i$, gained from each message over all lists $i$ and all people $m_i$ on each list, direct marketing in a particular medium is generally harmful to society if total social welfare (“SW”) is negative, or

(Eq. 8): $SW = \Sigma \Sigma m_i W_i = \Sigma m_i [(B - C)\theta_i - s - r + E] < 0$.

**B. An Example of Welfare-Reducing Marketing**

A simple example will illustrate how the value of direct marketing
can vary by communications medium. Assume that a firm wants to advertise its good using direct marketing. The firm has three lists of consumers with a different response rate, or the percentage of people on the list that purchase the good, for each list. Let the high, medium, and low response rate lists be H, M, and L, respectively, with corresponding response rates $\theta_H = 25\%$, $\theta_M = 5\%$, and $\theta_L = 1\%$. For this example, assume that the cost of producing and shipping the good is $C = $20, exclusive of advertising expense, and the price that it sets is $P = $30, yielding a profit per good sold, excluding advertising costs, also known as the “allowable margin” or “net order contribution,” of $P - C = $10 per unit sold. Meanwhile, consumers who receive messages incur a cost for processing the message $r$, which is assumed to be $0.25. Also assume that those consumers who choose to buy the good value it at $B = $32. Thus, they receive value of $B - P = $2 if they buy it.

We can see what happens when the sending cost $s$ falls, from $2 to $0.40 to $0.01, as marketers switch to lower cost media or as communications costs fall within a medium. The payoffs received per message, by firms, consumers, and society, are shown in Table 1 for Media 1, 2, and 3. (See infra Table 1.)

So for Medium 1 and List H in Table 1, there is a 25% probability that each message will result in a sale for the firm, which combined with a $10 allowable margin per sale, generates $2.50 expected (average) revenue per message. After subtracting out the $2 cost of a message, this yields a net expected profit, $\pi$, per message of $0.50. Meanwhile, consumers on List H have a probability of 25% of receiving a benefit of $2 from buying the good, for an expected benefit of $0.50 of hearing about the good, which with a cost of the equivalent of $0.25 in effort to process each message, yields a net expected benefit of $0.25 per message. Expected social welfare gained by society is then the $0.50 benefit (profit) to firms plus the $0.25 benefit (i.e., consumer surplus or “CS”) to consumers, or $0.75 for each message sent. It is assumed here that there are no costs or benefits to message intermediaries or the environment. If there were such, the estimated social welfare would be adjusted accordingly.

In Medium 1, because of the high sending cost, it is only profitable for a firm to send messages to List H. Meanwhile, Medium 2’s lower sending cost makes it profitable to also contact List M, and in Medium 3,
List L is contacted as well. Although the mailing to List H generates positive benefits to consumers and society in every medium, the mailing to list List M in Medium 2 yields negative consumer surplus and social welfare, and therefore, those messages are WRM messages. Consumers and society would be better off without this mailing.

In Medium 3 there is not just WRM for List L. If a consumer does not know which list he or she is on, and has equal probability of being on each list, then the expected benefit of receiving a message is -$0.04 per message such that the cost to the consumer of receiving all unsolicited advertising outweighs the benefit of hearing about the products offered. The consumer would then prefer to receive no advertising, and there would be Marketing Aversion. Medium 3 would be a candidate for Medium Failure if consumers were equally likely to be on Lists H, M, and L, and the gain from getting personal messages was less than the loss from receiving advertising messages.

Medium 4 demonstrates how an increase in the receivers' cost of processing messages can affect their attitude towards direct marketing. The rise in receiving cost relative to Medium 1 now makes receivers much worse off. And even though messages are better targeted in Medium 4, receivers in that medium are worse off than in Medium 2. Thus, the extent of the volume problem depends on the combination of r and s for a particular medium. Observe also that a ban on all advertising messages sent would increase social welfare in Medium 4 since that medium has Negative Welfare from Marketing. However, even though consumers may

71. Note that not knowing which list you are on means not knowing how the product’s attributes relate to your personal characteristics, rendering you unable to determine your likelihood of purchase before processing the message and learning about the product.

72. See infra Table 1, rightmost column.

73. In fact, since direct marketing is usually used for niche-type goods, consumers are much more likely to be on lists with low response rates such as L and M. With a higher probability of being on List M and especially L, the average consumer benefit from receiving unsolicited advertising will be even lower for Media 2 and 3.

74. A rise in receiving costs can occur for a number of reasons, such as an increase in the value of a receiver’s time, or the use of new media in which immediate processing of a message is needed, such as for a cell phone. These examples also demonstrate how technological changes can improve the situation. Changes that lower the cost of receiving messages (i.e., going from Medium 4 to Medium 1) will increase receivers’ net benefits from direct marketing.
advocate a ban in Medium 3, such a ban would not be welfare maximizing.

IV. APPLYING THE BASIC FRAMEWORK

A rough determination of which media are more likely to have WRM messages and Marketing Aversion can be made by examining the estimated sending and receiving costs for each medium. The results for a variety of media, using roughly estimated sending and receiving costs, are graphically displayed in Figure 2.\textsuperscript{75} Direct marketing messages from media that are characterized by both high receiving costs, such that the messages are costly for consumers to process, and low sending costs, such that the messages are more poorly targeted, will be less desirable to receivers. Hence, in the diagram, consumers should prefer advertising from media in the lower left, while media that are in the upper right are more likely to have WRM, Marketing Aversion, and Medium Failure. (See \textit{infra} Figure 2.)

This diagram demonstrates why some media have been regulated more quickly and heavily than others, particularly among older media. Despite complaints about the increased volume of direct mail received, mail’s characteristics probably give it the highest value of consumer surplus, which helps explain why it has remained unregulated. Telemarketing’s higher receiving cost has led to increasing regulation, while fax advertising’s combination of low sending costs and high receiving costs is probably the reason why it was quickly banned.

It is also clear from the diagram that the problems of WRM, Marketing Aversion, Medium Failure, and Negative Welfare from Marketing are potentially far more serious for the newer communications media, compared to the traditional media of mail and wireline calls. The use of electronic communications and the Internet has significantly lowered the cost of sending out messages, often by several orders of

\textsuperscript{75} While estimates can be easily developed for sending costs, estimating receiving costs for the average recipient is much more difficult. It was assumed here that receiving costs depend on how long it takes to process a message (e.g., e-mail can be quickly scanned and discarded), whether a message demands immediate attention or not (e.g., phone calls and messages to mobile devices are usually attended to quickly), whether there is a cost charged for receiving a message (e.g., wireless calls use up minutes of a plan; senders and receivers pay for each SMS message), and whether the receiver’s physical resources are used (e.g., faxes consume paper and ink).
magnitude. Meanwhile, the use of personal mobile devices to allow consumers to communicate whenever they want, no matter what they are doing, and to immediately send and receive important messages, has increased the disruption caused by receiving low value messages.\textsuperscript{76} Thus, the problems caused by direct marketing are likely to be quite significant for calls and text messages to wireless phones and for e-mail and instant messaging on the Internet. This helps explain why there has been an increased interest by the public and policymakers in regulating direct marketing, and why the option of banning direct marketing for particular media is increasingly discussed.\textsuperscript{77}

The potential for trouble would appear to be greatest for personal wireless devices if e-mail from the Internet is allowed to reach wireless phones as SMS text messages.\textsuperscript{78} With near-zero costs of sending, and a significant disruption caused to recipients, the potential harm caused by direct marketing here is very large.\textsuperscript{79} The FCC has imposed a ban on sending unsolicited commercial messages to the Internet e-mail addresses for wireless devices.\textsuperscript{80}

\section*{V. THE IMPACT OF OTHER FACTORS ON THE ANALYSIS}

While overall sending and receiving costs are key determinants of the existence and extent of WRM and Marketing Aversion, other factors, such as how individuals vary in their preferences for direct marketing, the impact of direct marketing on the environment and on message intermediaries, changes in technology and receivers’ value of time, the impact of the recent increase in volume of direct marketing received, and the existence of alternative direct marketing channels, also play a significant role. This Article discusses here how policymakers could take

\textsuperscript{76} This, and the fact that the consumers pay for minutes of use, explains why many people do not want to have their cell phone numbers published. \textit{See} CBSNews.com, \textit{supra} note 15.

\textsuperscript{77} \textit{See} Part II.A, \textit{supra}.

\textsuperscript{78} While in Europe such a connection has not been enabled, some U.S. carriers are starting to provide a gateway between Internet e-mail and SMS text messages. In Japan, DoCoMo already blocks as spam about 80\% of the one billion e-mails it receives from the Internet for its SMS customers. Guerra, \textit{supra} note 12.

\textsuperscript{79} Guerra, \textit{supra} note 12.

\textsuperscript{80} Non-Solicited Pornography, \textit{supra} note 28, at 15927, para. 1.
these factors into consideration when considering what kind of regulations, if any, are needed to regulate direct marketing within a particular medium.

A. Variation by Individual in Direct Marketing’s Impact

Individual characteristics of consumers play a crucial role since consumers are heterogeneous in the direct marketing they will receive and their reaction to it. Consumers will vary in two key dimensions. First, the receiving cost will vary by individual. Some people place a higher value on their time or find intrusions on some media more irritating. Others, however, may like the convenience of being directly notified of available products through direct marketing or may enjoy looking through catalogs even if they don’t buy. Second, people with certain characteristics may be more likely to be targeted by direct marketers. Mailing lists of consumers who make frequent purchases, have high incomes, or have recently had a baby are considered particularly valuable, and these consumers generally get more direct advertising. Some consumers might even find themselves placed on inappropriate mailing lists. One person complained that buying a baby gift for someone else put her on a mailing list for parents, and she was subsequently inundated by advertisements for baby products. To the extent that consumers are heterogeneous in their reaction to direct advertising, policymakers may want to give consumers the choice of not receiving direct advertising.

B. Variation in Impact According to the Source and Type of Direct Marketing

Some sources and types of direct marketing may provide less irritation than others, even if the response rates are similar. For example, consumers may not mind receiving direct marketing from firms of which they are currently customers. Surveys show that consumers are much more likely to read mail from firms with which they have had a past

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81. Oversight Hearing, supra note 21. Important and famous people also tend to receive a large volume of unsolicited personal messages and “fan mail,” creating a similar kind of burden, similar because the sender imposes a cost on the receiver of processing the unsolicited message. Id.

82. Oversight Hearing, supra note 21.
relationship. In addition, many consumers benefit from receiving and perusing catalogs, even if they make no purchase. They may enjoy keeping up with fashions and technology. They may also find their ability to get the lowest price improves with the receipt of multiple catalogs. Low response rates for these kinds of advertising might be misleading as to their value to consumers.

C. Impact on Third Parties

A full economic analysis of the problem should take into account not only the impact on consumers and firms of direct marketing, but also other externalities as well. First, direct mail and fax advertising may have an impact on the environment from the disposal of unwanted messages. Direct mail in particular has provoked complaints about the large quantity of solid waste created, and the burden on landfills it creates. In response, the U.S. Postal Service initiated a “Greening the Mail” Task Force to study methods of reducing environmental waste and improving recycling of mail, and about half of all direct mail marketers reported using recycled paper in their promotions.

Second, unsolicited advertising may have an impact on message intermediaries that have to deliver the messages. These intermediaries may find it harmful or beneficial to transmit the advertising messages, depending on the cost of handling the message and whether they receive compensation for passing it along. Telephone companies and the U.S. Postal Service receive payment for transmitting advertising and encourage it with volume discounts, as do TV and radio stations, which depend on advertising for their revenue. ISPs, on the other hand, receive no payment.
for messages sent or received, and unsolicited commercial e-mail has become a significant burden on their systems.87

D. Impact of Economic and Technological Factors on Sending and Receiving Costs

Economic and technological factors can have a significant impact on sending and receiving costs, and therefore on whether direct marketing should be regulated for a particular medium. The development of new electronic media for communication is the most obvious factor to take into consideration. These media usually have much lower sending costs, which increases the likely volume of poorly-targeted direct marketing received. In some cases, the cost of sending has dropped by several orders of magnitude.88

Receiving costs have also been affected by economic and technological factors. Time appears to have become an increasingly valuable commodity to consumers, so the cost of processing a message in a particular medium may be increasing. In addition, as people develop busy schedules, the ability to avoid or postpone handling low priority messages becomes more important and raises the cost of messages on media that require immediate handling, such as phone calls.89 Meanwhile, new technological advances have not just lowered sending costs, but receiving costs as well. The use of answering machines, voice mail, caller ID, and anonymous call rejection have lowered the receiving cost of telemarketing calls, just as spam filters have lowered the cost to receivers from e-mail advertising. In addition, it is important to recognize that the development of electronic messaging has not only lowered the cost of sending a message in comparison to phone calls, but also made it easier for receivers to scan the subject and contents of the message, and to delay processing the message until it is convenient.


88. See Figure 2, infra.

89. These factors may help explain the recent push to help consumers avoid telemarketing calls.
E. Impact of Changes in Volume and Targeting in Traditional Channels

Recently, the volume of direct mail and telemarketing calls has dramatically increased, as discussed above and seen in Figure 1. The reasons for this include a decline in sending costs, (especially in telemarketing) and businesses’ increased demand for advertising. The development of geodemographic and psychographic databases, with their extensive information about individual consumers, has also played a major factor in direct marketing’s growth. The use of these databases has helped direct marketers to better identify likely buyers and has increased the volume of direct marketing sent to these buyers.

The growth of direct marketing in traditional channels has drawn the attention of the public and the media and spurred adoption of a national do-not-call list. Yet, whether consumers are actually made worse off by this growth depends on the cause of the increase. To the extent that use of these databases helps improve the targeting of direct marketing, consumers may be better off because more of their mail and telemarketing calls will be useful, and they will receive fewer offers they do not want. However, the increase in volume may make consumers worse off, for two reasons. First, if lists with lower response rates are being used (due to a fall in sending costs), WRM is more likely, as already discussed. Second, the marginal benefit of receiving each additional message is likely to fall as more messages are received for competing products. The first credit card offer may be considered valuable, but the tenth such offer will probably be of little marginal value, since it is unlikely to be offering significantly higher benefits than earlier messages. On the other hand, for some products, more

91. SHAYER, supra note 90, at 229–30; Shiman, supra note 1.
92. SHAYER, supra note 90, at 228–31; see Shiman, supra note 1. The explanation for why better targeting increases the volume of direct marketing, which might seem counterintuitive if it is expected that it eliminates mailings to likely nonbuyers, is that increased information makes it profitable to conduct mailings that were hitherto unprofitable. For example, a firm might not find it profitable to advertise encyclopedias in a mailing to the whole population because of the low response rate, but might find it worthwhile to do a direct mailing to a list of parents of school-age children. A theoretical demonstration and analysis of this effect is provided in Shiman, supra note 64.
competing offers should mean increased competition and lower prices.\textsuperscript{93}

\textbf{F. Viewing Communications Media as Alternative Marketing Channels}

Rather than independently examining each medium to determine the extent of WRM on that medium, one could instead view all of the media available as just alternative means of delivering the same advertising message to consumers. If all consumers were identical, and available media only differed in their sending and receiving costs, then the problem can be defined for policymakers as finding the optimal medium in which to allow direct marketing to be distributed, while banning unsolicited advertising on all other channels, on which advertising would be redundant. However, since consumers are heterogeneous in their tastes and in the attention they pay to different media, and because of strong legal concerns about limiting free speech, policymakers are unlikely to fully adopt this viewpoint. Yet, this approach could play an important part in the evaluation of the problem of WRM in various media and the appropriateness of different solutions under consideration.

\textbf{VI. AVAILABLE SOLUTIONS TO THE PROBLEM}

In addition to the basic conditions described above, the extent and seriousness of WRM observed in a medium depends as well on the technological, organizational, and physical solutions that are available for dealing with the problem. A variety of innovative methods have been used to solve the problems of WRM messages and Marketing Aversion. This Article, discusses, in turn, those solutions that receivers can adopt for themselves, those that can be adopted by advertisers singly or through an industry association, and those that government (or if it exists, an organization or message intermediary that controls message sending on a particular medium) can impose. Many of these solutions have been discussed in the literature on direct marketing.\textsuperscript{94}

\textsuperscript{93} For example, competition between multiple credit card companies to gain customers might cause them to lower the price of obtaining a credit card. Thus the annoyance to consumers of getting more direct marketing could be outweighed by the drop in prices from the increase in competition.

\textsuperscript{94} See, e.g., Ayres & Funk, \textit{supra} note 47; Cranor & LaMacchia, \textit{supra} note 47;
A typology of the major types of solutions that have been used is presented in Table 2. While not a comprehensive list, most solutions employed fit into one of these types. These solutions generally have a goal of either eliminating poorly targeted advertising messages, reducing the cost of processing messages, or giving consumers the ability to avoid receiving some or all advertising. (See infra Table 2.)

A. Receiver-Deployed Solutions

Many consumers have found ways to scan messages, in order to determine their value quickly, instead of processing them fully. Scanning includes checking the source of the message (e.g., from the envelope, the “From:” field on an e-mail, or Caller ID), skimming the message, or using an answering machine to screen calls. While these methods generally lower the cost of processing messages, they increase the likelihood of missing potentially valuable offers or important messages that are accidentally filtered out. Scanning is made easier for consumers when advertising is well labeled, so government-imposed labeling requirements can be beneficial.

Another method used to handle WRM is to have someone screen incoming messages. Screening can be costly, and is employed, for instance, by people whose high value of time justifies paying a receptionist to answer telephone calls and read the mail. On the Internet, many forums are moderated, meaning someone has volunteered to screen out undesirable messages. This often involves a significant investment of time by the moderator. Filtering, which is similar, involves automatically rejecting messages depending on their type or source. E-mail, for example, can be

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Goodwin, supra note 41; Milne & Gordon, supra note 45; Nadel, supra note 47.

95. According to a 1998 survey, only 12.4% of households usually read their advertising mail, while 38.8% usually scan it, 37.2% read some of it, and 11.5% usually do not read it. Household Diary Study 1999, supra note 17, at III-27.

96. See Resnick & Taylor, supra note 9, at 16.

97. One academic listserv group's moderator, who normally does not filter out postings from subscribers, said he receives “many requests to post advertisements for new lists, new servers, new journals, old journals, dozens of conferences, and on and on. If I forward them all, you would want to unsubscribe.” Posting of Samuel H. Williamson, Executive Director, The Cliometric Society, Miami University, SWILLIAM@sba-laws.sba.muohio.edu, to econhist@cs.muohio.edu (Nov. 30, 1994) (on file with author and FCLJ).
filtered by software.\textsuperscript{98}

Limiting access can be implemented either by individual receivers, who can decide to receive messages only from people they know, or by a central decision maker who restricts communications to the group to those sent by approved members. Many Internet forums try to restrict marketers’ access to the group by limiting discussion to members.\textsuperscript{99} Some early users of Internet forums formed small private groups to continue their discussions uninterrupted by low-quality commercial and noncommercial messages.\textsuperscript{100}

B. \textit{Industry-Deployed Solutions}

A variety of solutions can be deployed by direct marketers that reduce the problem of WRM. Voluntary restraints are often recommended by industry groups and adopted by firms to forestall government regulation, to avoid offending potential customers, and to avert retaliation by unhappy recipients. For example, business is supposed to learn the proper “netiquette” for advertising on the Internet.\textsuperscript{101} Firms have been advised to avoid being obtrusive, to learn about and be respectful of the culture of the Internet, to tailor their messages to their audience, and to use more interactive methods of advertising.\textsuperscript{102} Offended consumers can quickly spread the word about a company’s transgressions,\textsuperscript{103} which makes large

\textsuperscript{98} Microsoft Outlook and many antivirus and firewall software packages now provide filters that attempt to remove UCE.

\textsuperscript{99} Chao, \textit{supra} note 11. Of course, for large public Internet forums, it can be difficult to identify marketers or people who have engaged in inappropriate marketing in the past and should be excluded because of the anonymity of the Internet. It is usually quite easy to create a new identity in these forums without divulging personal information.

\textsuperscript{100} \textit{Id.}


\textsuperscript{102} See Mehta & Sivadas, \textit{supra} note 101, at 22–24.

\textsuperscript{103} For example, one entrepreneur tried to market beauty cream to a business librarian newsgroup on the Internet, and later apologized to the group for the intrusion when he received a flurry of angry messages instead of orders. Mary J. Cronin, \textit{Doing Business on the Internet: How the Electronic Highway is Transforming American Companies} 117 (1994).
companies in particular very careful in how they market on the Internet, since they have more to lose from offending current customers than to gain by adding a few new ones.\textsuperscript{104}

Many firms maintain their own in-house “do-not-contact” lists.\textsuperscript{105} Some firms put check-off boxes on their mailings, order forms, and Web sites that allow their customers to indicate that they do not want any advertising from the firm, and that they do not want their name shared with others. Telemarketers are required by law to maintain lists of consumers who ask for no further calls from the telemarketer.\textsuperscript{106} This solution, sometimes called an “opt-out option” or “negative option,” allows consumers to designate more specifically the advertising they do not want, thus reducing the burden that WRM places on consumers.\textsuperscript{107}

Industry “do-not-contact” lists, which allow consumers to opt out of receiving all advertising, are the solution offered by the DMA.\textsuperscript{108} For example, there is a Mail Preference Service (“MPS”), which maintains a “do-not-write” list of people who have requested that they not receive any unsolicited direct mail.\textsuperscript{109} All marketers are expected to refrain from sending direct mail to people on this list.\textsuperscript{110} Similarly, the Telephone Preference Service (“TPS”) and the E-mail Preference Service (“e-MPS”) maintain “do-not-call” and “do-not-email” lists. The DMA requires that all members honor these lists.\textsuperscript{111} This solution is particularly appropriate when consumers differ in their reaction to direct marketing, such that some have Marketing Aversion, while others want to receive some advertising.

Offering inducements or rewards to process messages, such as coupons, prizes or lottery drawings, is a method some firms use to

\textsuperscript{104} See Mehta & Sivadas, supra note 101, at 24; Bowen, supra note 87. Unfortunately, there are small firms that care little about their reputation and are willing to offend many consumers in their hunt for a few buyers. Because of the very low cost of sending e-mail messages, even a small number of such firms can create a significant problem with spam.

\textsuperscript{105} Goodwin, supra note 41, at 104.


\textsuperscript{107} See Jeff Sovern, Opting In, Opting Out, or No Options at All: The Fight for Control of Personal Information, 74 WASH. L. REV. 1033, 1069–82, 1092–94 (1999).

\textsuperscript{108} COMPLIANCE GUIDE, supra note 24, at 11.

\textsuperscript{109} Id.

\textsuperscript{110} Id.

\textsuperscript{111} Id.
effectively lower the consumer’s cost of processing the message. It also increases the consumer’s likelihood of not discarding the message when scanning it.

Voluntary restraints may not be successful in media to which many firms have open access. Too many firms sending out poorly-targeted messages can lead to widespread Marketing Aversion and even to Medium Failure, in which consumers stop paying attention to the medium. In this case no single firm bears the full cost of sending out too many messages, thus leading to a free-rider problem where each firm has inadequate incentive to reduce its own message sending, despite the benefit if all do so. Consumer enforcement of rules may also be ineffective. For example, netiquette has often been enforced by users themselves, who have “flamed” or sent rude messages back at those who break the understood rules of the Internet.\footnote{112} Yet, some aggressive marketers are willing to brave this “flame war,” if it is profitable. According to one marketer, a typical mailing is sent out to about 250,000 addresses at a time and yields a 0.5% positive response rate, with flames trashed automatically.\footnote{113} Voluntary self-regulation will be effective only if four conditions hold: (1) the regulations are strong enough to solve the problem for consumers; (2) existing firms agree to the regulations; (3) entry into the industry is difficult for small unscrupulous firms that ignore the regulations; and (4) those abuses that do occur are not very costly to consumers.

C. Solutions Imposed by a Government, Message Intermediary, or Controlling Organization

In some media there is a controlling organization (that controls the content of the messages sent) or a message intermediary, (which carries messages but does not generally decide on content), which has an incentive to reduce WRM and avoid Medium Failure, especially if its income depends on consumers paying attention to the messages received, or if transmitting the messages is costly and unprofitable.\footnote{114} In other media

\footnote{112} See Milne & Gordon, supra note 45, at 209.
\footnote{113} Bowen, supra note 87.
\footnote{114} For example, television and radio stations are controlling organizations that limit the amount of advertising they broadcast in order to avoid driving viewers away. Too much advertising leads to the equivalent of Medium Failure in which consumers stop paying
government regulation may be the only way to reduce or eliminate WRM and avoid Medium Failure. In addition to making opt-out programs, (such as the FTC’s Do Not Call Registry), and labeling requirements mandatory, government, message intermediaries, and controlling organizations have other methods available for reducing the problem of WRM.

Charging a fee or tax for sending messages is one method of reducing WRM. With higher message-sending costs, senders will have an incentive to use only lists with high response rates. Since senders already know the message, it might be socially desirable and economically efficient to make them determine for whom the message will be valuable.\(^\text{115}\) The socially optimal fee was derived in Shiman, *When E-Mail Becomes Junk Mail*.\(^\text{116}\) One variant of this solution that has recently gained popularity in the scholarly press would require senders of unsolicited advertising to offer to pay receivers to receive messages, at a price to be set by the receiver.\(^\text{117}\) It has been argued that this will achieve the optimal level of message sending and eliminate the negative externality that unsolicited messages impose on receivers.\(^\text{118}\)

attention to the medium by changing the channel. ISPs attempt to eliminate spam, partly because of the cost of carrying it and also because of their customers’ dislike for it. Bowen, *supra* note 87.

115. Similarly, low-quality messages can often be discouraged by charging a fee, as some refereed journals do for submitted papers and college admissions offices do for applications.


118. See, e.g., Ayres & Funk, *supra* note 47, at 80–81; Loder, Van Alstyne & Wash, *supra* note 47, 6–8. Since senders have to pay for the processing costs they impose on receivers, this proposal effectively internalizes the externality, and the higher sending costs induce senders to better target their messages to consumers who are likely to purchase the good. However, a potential problem with this proposal that is not addressed by advocates is that many receivers may attempt to game this system in order to maximize the revenue gained from senders. Receivers interested in increasing their income may want to misrepresent their likelihood of purchasing to try to increase the messages they get paid for receiving. Thus, many consumers will want to provide false information about their characteristics to surveys and questionnaires to make themselves look likely to purchase expensive goods. For example, a low-income respondent could describe herself as a wealthy boat owner in order to attract and be paid for receiving direct marketing messages attempting to sell boats or accessories. This could cause significant problems for poll-takers, market researchers, and the Census, for whom it is essential that respondents have no
To reduce the intrusiveness and receiving cost of some messages, limitations are often placed on how and when messages are sent. Restrictions have been placed on telemarketers to prohibit calling late at night, to prevent the tying up of emergency police and ambulance lines, and to stop telemarketing equipment holding on to the line after the recipient has hung up.\footnote{47 U.S.C. § 227(b).}

Government or a message intermediary may decide to implement a total ban on unsolicited advertising, such as was imposed by the government on unsolicited fax advertising.\footnote{Id.} Such a policy would be desirable if there is Negative Welfare from Marketing. For example, in Table 1 a ban on all advertising would be beneficial to society in Medium 4. A policy banning the sending of advertising unless consumers grant permission is sometimes called “opt-in.” The Internet has had a culturally-understood ban on bulk mailings of UCE, with ISPs attempting to enforce the ban through “acceptable use” policies that users are required to abide by.\footnote{Bowen, supra note 87.} Once detected, bulk e-mailers usually have had their access to the Internet revoked by their ISP; however, they have been able to regain access through ISPs that are less vigilant or more cooperative, or by use of subterfuge.\footnote{See Zeller, supra note 8. See Raymond B. Everett, Guerilla Warfare: A System Administrator’s Perspective on Unsolicited Commercial E-Mail, testimony submitted to the FTC Workshop on Unsolicited Commercial E-Mail (1997), http://www.ftc.gov/bcp/privacy/wkshp97/comments2/reverett.htm (stating that ISPs have very little incentive in the marketplace to invest in technology that would prevent spammers from sending messages).}

Unregulated media suffering from WRM, Marketing financial interest in providing untruthful answers. Note that proposals that require consumers to read the messages before being paid could be foiled by software that pretends to read the message. For an example of proposals that require consumers to read messages before being paid, see \textit{Gates et al., supra} note 117, at 173–74. Alternative schemes of charging senders can be devised that avoid this incentive for misrepresentation, but they would not likely achieve the optimal level of message sending. For example, consumers could be allowed to set their price for receiving a message, but would only be compensated if they purchase the good. They would not then want to attract messages for goods they would not buy, and the higher price set by some receivers would discourage senders from sending messages to them. Alternatively, the senders’ payments could go to another entity (e.g., the carrier providing the communications service) rather than the receiver. The higher sending costs would induce senders to better target their messages, and receivers would not have an incentive to attract messages for goods they are unlikely to buy.
Aversion, or Medium Failure might, however, evolve into controlled media, which are controlled by a single organization and are often able to deal more effectively with the problems caused by unsolicited advertising (and the related problem of the broadcast of low-quality noncommercial messages). For example, moderated forums and newsgroups have often replaced open forums on the Internet.123

VII. CONCLUDING REMARKS

Policymakers should be concerned about the economic inefficiencies and harms to privacy potentially caused by some forms of direct marketing. But before making a decision as to whether and how direct marketing should be regulated, policymakers should carefully assess the characteristics of a medium, employing economic analysis such as was used in the framework presented in this Article. This is in addition to a careful examination of the legal and ethical considerations involved, such as firms’ right to free speech and individuals’ right to privacy. Policymakers should keep in mind five important points while performing this analysis: (1) microeconomic social welfare analysis provides a useful framework for assessing the volume problem; (2) sending as well as receiving costs in a particular medium should be considered, since the former determines the degree of targeting; (3) in some media, consumers will differ in their valuation of receiving direct marketing, and the solution chosen should be sensitive to these differences; (4) the existence of alternative media will affect the value of unsolicited advertising on a particular medium to consumers and society; and (5) organizational, economic, and technological developments may reduce or increase the need for regulation of direct marketing.

When WRM is present, consumers and message intermediaries may need help in managing the flow of advertising received. The most desirable solution for consumers would be to make it easier for them to process messages. This would lower receiving costs, and would allow consumers to process more information about products available and thus make better purchasing decisions. This can sometimes be achieved with relatively
unobtrusive regulations, such as requiring marketers to label the sources and purposes of messages and banning deceptive practices. These measures would also help consumers to prioritize processing of their messages.

Opt-out and opt-in programs give control to consumers of whether advertising messages are sent to them. These methods are crude in the sense that consumers cannot determine whether individual offers are worth examining, but can be useful for many consumers when Marketing Aversion is widespread. Opt-out programs, whether company-specific or medium-wide, allow consumers to determine when a particular source of advertising is yielding positive utility, although the burden is on consumers to find out about the programs and sign up for them. They may also benefit marketers by giving low-interest consumers, who are unlikely purchasers, the ability to remove themselves from the mailing lists. These programs are more effective when they are well publicized and all direct marketing firms have to honor them, such as with the FTC’s Do Not Call registry.

Many solutions can be implemented by industry, and thus government intervention is not needed in all media with WRM. However, voluntary restraints do not always work.\textsuperscript{124} Whether industry can develop effective regulations for itself is unclear since some firms will ignore voluntary guidelines. As one observer pointed out, “bad guys don’t self-regulate.”\textsuperscript{125}

It is possible that media with open access to marketers and widespread Marketing Aversion will be supplanted by controlled media, with one organization controlling or monitoring content, if that organization proves able to deal effectively with unsolicited advertising. A competitive market for media could develop, with open and controlled media competing for consumers’ attention. In addition, new technologies may develop to help consumers handle unsolicited advertising, (as answering machines and Caller ID have done, and filtering software may do).

\textsuperscript{124} For example, the DMA’s attempt to reduce the public’s concerns about spam by requiring marketers to obey the e-mail preference service, and include a valid means of opting out on their solicitations, has generally been unsuccessful. \textit{See} Compliance Guide, \textit{supra} note 24, at 14 (stating that if a member of the DMA fails to adhere to the Privacy Promise, the DMA can take action against the company, which at most includes being expelled from the DMA).

\textsuperscript{125} Dentino, \textit{supra} note 48, at 40.
The development of new electronic media poses a major challenge to policymakers who desire to protect these new forms of communication for the benefit of consumers. The significantly lower sending costs of some media, such as e-mail and instant messaging, and the higher receiving costs of communications using mobile devices, increases the potential burden on consumers, and welfare lost to society, caused by direct marketing. It should be kept in mind that if the sending costs are low enough, the resulting flood of poorly-targeted marketing means that virtually all recipients will place a negative value on receiving direct marketing. Medium Failure is possible if users become deluged with direct marketing and abandon the medium. Thus, if other solutions turn out to be ineffective, a complete ban on direct marketing may be needed (if it is even feasible to implement) to maintain the viability of the medium. While it is possible that technology will reduce or eliminate the problem, the outlook is not hopeful for e-mail and similar forms of electronic messaging. The cost of sending messages is too low, entry is too easy and anonymous for small firms, regulations on content and labeling are impossible to perfectly enforce on the Internet, and spammers will likely always find a way to get around anti-spam filters by making their messages look legitimate.126 Already spam has been found by one study to have cost the United States $17 billion in 2003 from lost productivity.127

Further research is needed to determine the existence and extent of WRM and Marketing Aversion in various media, how well various solutions ameliorate the negative externalities generated by direct marketing, and the heterogeneity of consumer responses to direct marketing in each medium. While it may prove impossible to precisely quantify the costs involved, particularly receiving costs, a general assessment should be possible through the use of public opinion surveys, rough estimations of costs involved, and analysis of the technologies available.

126. The Internet has two key characteristics that make controlling WRM particularly difficult: (1) the marginal cost of sending messages is essentially zero, so bulk e-mailings can be profitable; and (2) senders can connect easily and anonymously so that identifying them in order to block access or prosecute them can be extremely difficult.
## Table 1

Payoffs Per Message to Firms, Consumers, and Society for Direct Marketing As Sending Costs Fall

<table>
<thead>
<tr>
<th>Lists of Consumers and Their Associated Response Rate</th>
<th>Average (per consumer contacted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H (= 25%)</td>
<td>M (= 5%)</td>
</tr>
<tr>
<td><strong>Medium 1, s=$2, r=$0.25:</strong></td>
<td></td>
</tr>
<tr>
<td>Firm profit ($\pi$)</td>
<td>0.50 *</td>
</tr>
<tr>
<td>Consumer benefit (CS)</td>
<td>0.35 *</td>
</tr>
<tr>
<td>Social welfare (SW)</td>
<td>1.35 *</td>
</tr>
<tr>
<td><strong>Medium 2, s=$0.4, r=$0.25:</strong></td>
<td></td>
</tr>
<tr>
<td>Firm profit ($\pi$)</td>
<td>2.10 *</td>
</tr>
<tr>
<td>Consumer benefit (CS)</td>
<td>0.25 *</td>
</tr>
<tr>
<td>Social welfare (SW)</td>
<td>2.35 *</td>
</tr>
<tr>
<td><strong>Medium 3, s=$0.01, r=$0.25:</strong></td>
<td></td>
</tr>
<tr>
<td>Firm profit ($\pi$)</td>
<td>2.49 *</td>
</tr>
<tr>
<td>Consumer benefit (CS)</td>
<td>0.25 *</td>
</tr>
<tr>
<td>Social welfare (SW)</td>
<td>2.74 *</td>
</tr>
<tr>
<td><strong>Medium 4, s=$2, r=$2:</strong></td>
<td></td>
</tr>
<tr>
<td>Firm profit ($\pi$)</td>
<td>0.50 **</td>
</tr>
<tr>
<td>Consumer benefit (CS)</td>
<td>-1.50 **</td>
</tr>
<tr>
<td>Social welfare (SW)</td>
<td>-1.00 **</td>
</tr>
</tbody>
</table>

* Lists that receive a marketing message because they are profitable for marketers ($\pi > 0$)

** Lists that receive welfare-reducing marketing (WRM) messages, for which SW<0.

*a Assumes consumers are evenly divided among all three lists. The numbers are calculated only for those lists contacted and are averages per message.*
TABLE 2

Types of Solutions to the Problem of Welfare-Reducing Marketing

<table>
<thead>
<tr>
<th>Brief Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Scanning</td>
<td>Receiver quickly determines source or content of message (made easier if message is properly labeled)</td>
</tr>
<tr>
<td>2 Screening &amp; Filtering</td>
<td>Messages screened by another person (receptionist or moderator) or automatically (filtering software)</td>
</tr>
<tr>
<td>3 Limited Access</td>
<td>Access to the medium, group, or receiver is restricted to approved senders only</td>
</tr>
<tr>
<td>4 Company-specific opt-out= Firm Do-not-contact list</td>
<td>Receiver can put name on list requesting no advertising from a specific firm</td>
</tr>
<tr>
<td>5 Medium opt-out= Industry Do-not-contact-list</td>
<td>Receiver can put name on list requesting no advertising messages on that medium</td>
</tr>
<tr>
<td>6 Rewards</td>
<td>Sender offers inducement for a receiver to process message</td>
</tr>
<tr>
<td>7 Fee</td>
<td>Sender charged for sending message</td>
</tr>
<tr>
<td>8 Restrictions on sending</td>
<td>Restrictions imposed on how and when messages are sent</td>
</tr>
<tr>
<td>9 Total ban or opt-in only</td>
<td>No advertising messages permitted, or allowed only with express permission of receiver</td>
</tr>
</tbody>
</table>
FIGURE 1

Third Class Pieces of Mail Received per Person, and Inflation-Adjusted Direct Mail Expenditures per Person, 1950–2004

Third class pieces per person are actual number of pieces received per year. Real direct mail expenditures per person are in thousands of (base year 2000) dollars per person, adjusted for inflation.

Sources: Total Population for per person calculation is derived from the U.S. Council of Economic Advisors, Economic Report of the President tbl. B-34 (2004), available at http://www.gpoaccess.gov/usbudget/fy05/sheets/b34.xls. (1) Third Class (Standard mail) Pieces per Person: Bureau of the Census, U.S. Department of Commerce, Historical Statistics of the United States: Colonial Times to 1970 (1975), at 806; U.S. Postal Serv., Annual Report of the Postmaster General (various years) (on file with the Author); Bureau of the Census, U.S. Dept. of Commerce, Statistical Abstract of the United States (various years). Third Class is now called Standard mail. Standard mail is a discounted rate reserved for bulk (large volume) advertising mail. The USPS reported that in 2003 about 76% of advertising mail was Standard (third class) mail. Household Diary Study 2004, supra note 4. (2) Real Direct Mail Expenditures per Person, deflated using the GDP price index: Coen U.S. Advertising report, supra note 5; Economic Report of the President, supra note 5. The Direct Mail Expenditures were divided by the U.S. population estimates and by the GDP implicit price deflator (with the year 2000 set to 1).
FIGURE 2

Key Characteristics of Various Communications Media

<table>
<thead>
<tr>
<th>Wireless calls</th>
<th>Fax</th>
<th>SMS→SMS messaging</th>
<th>Email→SMS messaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wireline calls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mail</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instant messaging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet forums</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Higher Receiving Costs (r) → Lower Sending Costs (s)

Placement on both axes is estimated. Placement on horizontal axis according to 1/s.

Sources: For receiving costs, rough estimates of relative values by medium have been used, according to various factors, such as time it takes to process, flexibility in when to process, ability to scan and identify the message’s sender and subject, and can vary by individual. For further discussion on receiving costs, see Part III, supra, text for discussion. The sending costs include both the cost of acquiring lists of consumers’ addresses and telephone numbers, and the cost of creating and sending the message. Notes on how sending costs s and some receiving costs r were determined:

1. Mail:
   - s: Approximate cost of $0.35–$0.40 per piece of doing a direct mailing of an advertisement for one product, assuming typical format. DIRECT MKTG ASS’N, STATISTICAL FACT BOOK 1995, at 262.
   - r: Includes cost of printing the fax on a laser or inkjet printer. See CONSUMERS UNION, CONSUMER REPORTS BUYING GUIDE 137 (2006).

2. Wireline and Wireless calls (telemarketing):
   - s: Range of $1–4 for outbound mail sent to consumers cost per decision-maker contact given in Stone, supra note 58, at 338. See also DIRECT MKTG ASS’N, STATISTICAL FACT BOOK 1995, at 144 (showing cost of $4–5 per call on its sample outbound telemarketing cost worksheet). Wireless telemarketing would likely be more costly because of the greater difficulty in obtaining wireless phone numbers.

3. Fax:
   - r: Will likely include $0.02–$0.08 per page for cost of printing the fax on a laser or inkjet printer. See CONSUMERS UNION, CONSUMER REPORTS BUYING GUIDE 137 (2006).

4. E-mail:
   - r: Includes cost of transmitting, storing, and downloading for consumer and ISPs.

5. Internet Forums, including Usenet Groups and Listservers:
   - s: Very low cost of writing and posting to a group with many readers.
   - r: Includes cost of transmitting, storing, and downloading for consumer and ISPs.

6. SMS text messaging for messages sent to wireless phones:
s: The cost of sending one SMS message (SMS→SMS) to an SMS receiver (i.e., SMS to SMS) is approximately $0.05–$0.10, based on wireless phone plans; however, monthly plans with bundles of SMS messages included are available, which would lower the average cost to $0.01 per message. Short Message Service, WIKIPEDIA, http://en.wikipedia.org/wiki/Short_message_service (last visited Mar. 28, 2006). The cost of sending Internet e-mail to SMS Messaging users (i.e., e-mail to→SMS) is the same as e-mail.
